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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,654	06/27/2001	Takashi Maruko	Q65201	5513

7590 11/05/2002

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EXAMINER
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DUONG, THANH P

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/891,654

Applicant(s)

MARUKO ET AL.

Examiner

Tom P Duong

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102/103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

1. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Higuchi (5,704,854). Regarding claims 1 and 2, Higuchi discloses a multi-piece solid golf ball (Fig. 1) comprising a solid core (1) of at least one layer, an intermediate layer enclosing the solid core, and a cover (3) enclosing the intermediate layer, wherein said intermediate layer has a gage  $G_1$  of 0.8 to 2 mm and 1 to 2mm (Col. 3, lines 27-30) and a Shore D hardness of 50 to 65 (Col. 2, lines 59-60), said a cover has a  $G_2$  of 0.5 to 1.3 mm and a Shore D hardness of 37 to 53 (Col. 3, lines 39-41). Although, Higuchi does not disclose the following equation:  $[G_1/(G_1 + G_2)] \times 100 \Rightarrow 45\%$ , but this equation is inherent within the context of the disclosure. Furthermore, the values  $G_1$  and  $G_2$  disclosed by Higuchi appear to satisfy the above equation. Regarding claim 3, Higuchi discloses a multi-piece golf ball of claim 1, wherein said solid core undergoes a deflection of 3 to 4.5mm under an applied load of 100 kg (Col. 2 lines 55-56). Regarding claim 5, Official Notice is taken that it is conventional and desirable to make a cover out of urethane resin to improve feel over ionomer cover and cut resistance over a balata cover (See USPN 5,334,673).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied in claim 1 above, in view of Sullivan (5,688,869). Regarding claim 4, Higuchi does not disclose multi-piece solid golf ball of claim 1 wherein said cover is formed of a cover material having a melt index of at least 3.0 dg/min at 190° C, but Sullivan teaches a golf ball having a cover composition with a melt index of 35 dg/min (Col. 4). Thus, it would have been obvious in view of Sullivan at the time of the invention was made that Higuchi would have obtained a melt index of at least 3.0 dg/min by carrying out similar laboratory testing as taught by Sullivan. One of ordinary skill in the art would have expected Higuchi to obtain similar melt index as taught by Sullivan since the disclosed composition of Higuchi and Sullivan are similar. In addition, Official Notice is taken it is conventional during the molding process to have or to control the melt-flow index at least 1.0 or greater to aid in molding and processing; thus, it is inherent that the golf ball cover of Higuchi would have such melt-flow index from molding process.

3. Claims 6-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimosaka et al. (5,816,937). Shimosaka discloses a multi-layer solid golf ball having an intermediate layer (4) and a cover layer (5) wherein the intermediate layer has a gauge, G1, thickness of 1.7-2.5 mm (Col. 3, lines 13-15), a Shore D hardness of 61-65

(Col. 27-31); a cover of urethane resin (Col. 3, lines 41-43) having a thickness of thickness, G2, of 0.02 to 1.1 mm (Col. 3, lines 39-43), a Shore D hardness of 30-54 (Col. 3, lines 33-36); and a solid core distortion of 2.8 to 6.0mm under a load of 100Kg. With respect to the melt-index, Official Notice is taken it is conventional during the molding process to have or to control the melt-flow index at least 1.0 or greater to aid in molding and processing; thus, it is inherent and obvious that the golf ball cover of Shimosaka would have such melt-flow index from molding process. It appears that the cover thickness of Shimosaka's golf ball satisfies the claimed invention formula  $G1/(G1/G2) \times 100 \geq 45\%$  and such formula appears to have no patentable weight.

### ***Response to Arguments***

Applicant's arguments filed 8/20/02 have been fully considered but they are not persuasive. Applicant argues that Higuichi 854' does not show the intermediate layer is harder than the cover; however, Higuichi shows the hardness range of the claimed invention; thus, the rejection is anticipated by Higuichi 854'.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell can be reached on (703) 308-2126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7768 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4148.

Tom Duong  
October 31, 2002

  
Paul T. Sewell  
Supervisory Patent Examiner  
Group 3700